

MARQUETTE

BUSINESS REVIEW

A JOURNAL OF FUNDAMENTAL BUSINESS PRINCIPLES

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WHAT GOVERNMENT SPENDING DOES TO THE ECONOMY

by

Yale Brozen*

The predominant demand, among those who believe that the government must "do something" about the recession, is for increased government spending. The administration has offered a post office construction program, and is increasing spending for defense purposes and public works out of appropriations already authorized. Congress has the usual omnibus rivers and harbors bill, more familiarly known as the "pork barrel," in the works. Bills are in the hopper to increase highway spending beyond the limits permitted by current highway tax receipts, to increase spending on schools, hospitals, and water projects.

Many of these are proposed because of the belief that "pump priming" is necessary. Will this spending in fact prime the pump? Will it restore full employment, and can business plan in terms of an expanding market?

Before looking at the immediate picture, let us examine past trends and their meaning. This will help us place the current situation in perspective and enable us to evaluate better the significance of increased and governmental spending.

In the 1920's government purchases of goods and services consumed 10 per cent of our total gross national product. This left 90 per cent to be used privately in any way individuals saw fit. They chose to consume 70 per cent of the gross national product. This left 20 per cent to invest in better equipment and plant to increase productivity and in new housing to improve living conditions. During the post-World War I decade, our productivity rose in manufacturing industries at the rate of 5.5 per cent per year as a result of the high rate of investment in plant and equipment.

In recent years government purchases of goods and services have consumed 20 per cent of our gross national product. This is *double* the rate of the 1920's. Since government has taken over the use of a larger part of our resources (manpower and capital), less has been left for individuals to apply as they see fit. As a consequence, the proportion of our product going into consumption and investment uses has declined. Personal consumption has dropped to 65 per cent of our gross national product. The money taken away by taxes has cut the amount left for consumer spending. The decline in consumer spending has released resources for use by the government. About 7 per cent of the resources that would normally be used to produce goods for consumers are instead being devoted to governmental uses.

In addition to the cut in personal consumption there has also been a cut in the rate of capital formation. This has fallen from 20 per cent

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of the gross national product to 15 per cent. The relatively lower rate of capital formation has slowed the rate of rise in productivity. In the post-World War II decade productivity in manufacturing has risen by only 3 per cent per year as compared to 5.5 per cent per year in the post-World War I decade.

Almost 25 per cent of the resources which would normally be employed to produce housing, plant, and equipment have been taken over for governmental use as compared to only 7 per cent of those which would normally be employed producing consumer goods. Why has there been this three times greater fall in the rate of capital formation?

We came out of the 1930's with many people convinced that our economy was stagnant — that it had no further need for more locomotives, office buildings, long distance transmission and communication lines, and additional machinery. Savings were regarded as a "leakage" from purchasing power which would not be sufficiently "offset" by investment to maintain full employment. We redesigned our tax structure to reduce the rate of saving by imposing very high taxes on the people who do most of our saving. Since these are the people who saved in the past and acquired investments which produce income from which they continue to save, we imposed three tax levies on this source of income, while imposing only one tax on other types of income. Property income is hit by property taxes, corporate earnings taxes and corporate capital levies, and personal income tax. Other sources of income are hit only by the personal income tax. As a result, the rise in the level of government spending has not only fallen on both consumption and capital formation, but has also fallen disproportionately more on capital formation. We are paying the price in a reduced rate of progress.

Mr. Khrushchev has declared that the Russians will win by raising their productivity more rapidly than we increase ours. According to the best figures we can get, the Russians are saving and investing 25 to 30 per cent of their gross product. Their net capital formation is occurring at a rate well over twice our own. Consequently, if our information is reliable, Russian productivity is rising more rapidly than our own; they are winning the productivity race.

This, of course, has very important implications for our choice of policies for stemming the recession. However, before analyzing the effect of the spending approach to cure unemployment, let us first see what is causing the current situation.

In the past year, manufacturing wage rates have gone up 4.6 per cent. Because of the price level rise, the increase in wage rate in real terms — in terms of purchasing power — is a little over 2 per cent. However, our rise in productivity has been only about 1 per cent in the past year. Whenever real wage rates rise more than productivity, we suffer unemployment. The 1954 recession was caused by a nearly 6 per cent rise in real wage rates in a period when productivity rose by only 4 per cent. The 1949 recession was caused by a 5.3 per cent rise in real wage rates while productivity rose less than 4 per cent. If we go back to the 1929-33 series of recessions-depressions,

we find there was an almost 4 per cent rise in real wage rates during the time that productivity *declined* by 3 per cent (as a result of a decline in quantity of capital).

Our current unemployment problem is one of labor's being too high-priced to be worth employing on some of the less productive equipment. If men are to be re-employed, we must either cut the real wage rate or put more productive equipment into use so that it is worth employing high-priced people.

The real wage rate can be cut in either of two ways. Money wage rates can be cut. Alternatively, we can increase demand by pumping money into the economy and cause price increases which will reduce the real wage rate. Since many rates are covered by union contracts, some of a long-term character, and others by minimum wage laws, the possible area of wage cuts is limited. Even in these areas, most employers are unlikely to press for wage cuts since social attitudes on this question make them reluctant to face the public opinion generated by this act.

Increases in government spending may increase demand and prices, and thus cut real wage rates, provided they are financed by inflationary means. If they are financed by borrowing funds which would have gone into investment, the decline in capital spending will offset increased public outlays. This will also have the secondary impact of decreasing the rate at which new, more productive equipment is put into place. To this extent, government spending will slow the rate at which people will be re-employed at current wage rates.

If the increased spending is financed by creating new money, by borrowing from banks which are provided with additional reserves by the Federal Reserve, it will increase demand and prices. We could do this more quickly by decreasing taxes than by increasing spending. It takes time to acquire property, draw the blueprints, and let contracts for additional highway, school, and hospital construction spending. A decrease in taxes would immediately increase private spending. A tax cut is far preferable to more spending.

If we decrease the right taxes, we can get re-employment with a minimum of inflation. If we decrease those taxes which fall on investment income, such as the corporate income tax, the increased incentive to invest and the increased income saved and invested would lead more quickly to putting more productive equipment in place. With a smaller fall in real wage rates, we would arrive more quickly at full employment.

The tax cut which would be most effective in restoring employment without any cut in the real wage rate would be the elimination of the super-rates of 70, 80, and 90 per cent on high bracket incomes. These rates are largely punitive. They produce little revenue, serving primarily to deter people from earning income in a form subject to these rates. If the 91 per cent rate were cut to 50 per cent, the loss in revenue to the Federal government would amount to about eighty million dollars. Actually, there would very probably be more tax collected at 50 per cent than is now collected at the 80 and 90 per cent rates. People generally do not choose to earn income which will be

subject to these rates. At lower rates, they would undertake new enterprises and risky ventures with which they do not bother now.

These new activities resulting from high bracket tax cuts would provide employment. Since many of these activities would consist of risky research and development ventures and the design and marketing of new equipment, they would increase productivity and make it worth rehiring high-cost people. Also, the additional savings of high bracket taxpayers would furnish the capital for more rapid replacement and modernization.

Since cuts in high bracket tax rates are unlikely to cause any revenue loss to the government, it will not be borrowing the funds (to finance a deficit) which are likely to go into the purchase of new equipment. The rate at which new equipment is put into place will not then be adversely affected and re-employment at current wage rates will come more rapidly than it would under schemes for creating deficits.

If we attempt to restore employment by cutting low bracket tax rates and excises, then, only to the extent that the resulting deficit is financed by inflationary means, will such measures serve the purpose. The increased demand for goods will be felt almost entirely in consumer markets. Since it will not be worth re-employing people on obsolescent equipment unless prices rise enough to cover high wage costs, we will restore employment by purely inflationary means, by a cut in real wage rates, although prices increase. Since reduced tax rates will be offset by price increases, the real income of those who receive the tax cuts will benefit little.

If we wish to minimize inflation and reduce real wage rates as little as possible, the preferable method for restoring employment is to do those things which will lead to the more rapid investment in new, more productive equipment. Cuts in low bracket rates and excise taxes do less toward this end than reduction in other varieties of taxes.

To sum up, increases in government spending may or may not cause increases in demand for products. To the extent that it does so, it is because the resulting deficit is financed by inflationary means. If we want to restore employment by an inflation financed deficit, we can more quickly get a deficit and finance it by inflationary means by cutting taxes than by increasing spending. Cutting low bracket income taxes and excise levies will be purely inflationary. Cutting corporate earnings taxes and high bracket income taxes in the manner provided in the Sadlak-Herlong Bill would minimize the amount of inflation and the amount of cut in real wage rates required to restore full employment. If we neither cut taxes nor increase spending, we can get employment restored with minimal inflation by monetary policy such as open market purchases of long-term bonds by the Federal Reserve (although this is least in my interest as a professor paid in part from the interest income of our endowment). This would be less inflationary than low bracket tax and excise levy cuts.

Above all, this is a time to avoid any more wage rate increases. Every increase will slow recovery and will tend to cause even more unemployment.

COMPUTER LEADERSHIP IN THE MID-WEST

by

A. J. Slowinski*

In the face of the accomplishment on the east and west coasts in the establishment and utilization of electronic data processing systems, the impression is sometimes made that the Middle West has been lagging far behind. Yet, a recent survey conducted by the Bureau of Business and Economic Research of Marquette University gives ample evidence that this area can claim a number of firsts in the field, and that Mid-West management has had the courage not only to install the already widely used systems and find new applications for them, but even more important, has experimented with lesser-known equipment when this seems better able to fulfill special requirements. Among the latter, the first Bizmac computer was installed in the Detroit area and the first Datamatic 1000 in Michigan. The first Univac File Computer Model O in Federal Government Service was installed in the United States Air Force Aeronautical Chart and Information Center in St. Louis. In the retail industry, the first Tape 650 was installed in January, 1958, by Montgomery Ward in Chicago. The very first IBM 702 was installed by the Monsanto Chemical Company in St. Louis, Missouri, in February of 1955. An Ohio utility was the first to process combined gas and electric service bills on an IBM 650, while a Wisconsin electric utility company was the second to convert its customer billing procedures to this computer successfully.

Agriculture in the Mid-West has also made extensive use of its computer installations. The Commodity Stabilization Service of the United States Department of Agriculture at Kansas City, Missouri, acquired a Univac I in October, 1957, for the handling of loans on grain crops and the myriad of details involved in moving and merchandising grain which comes into the price support program. At the time of the installation this Kansas City office supervised the management of inventories valued in excess of one billion dollars in five states. Included were thirty-eight million bushels of wheat and one hundred and eighty million bushels of corn.

The success of this initial operation led to the decision to broaden the service of the Kansas City unit to include the processing of 1958 grain loan documents for all states west of the Mississippi, exclusive of Iowa, and to install comparable service in the Chicago and New Orleans field offices. The Chicago office will handle grain price support records for all states east of the Mississippi, plus Iowa. The New Orleans office processes cotton loan and inventory data for the entire cotton belt.

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Nor have the educational institutions of the Mid-West taken a back seat in this new field. Datatron computers were installed at the University of Chicago, the University of Dayton, and Purdue University; IBM 650's are to be found at Iowa State College, Wayne State University, Indiana University, University of Michigan, Ohio State University, and Marquette University.

Purdue University utilizes its computer installation in a variety of courses and research projects. A course is offered each semester in digital computer programming. The equipment serves as a laboratory for a statistics course on IBM machine methods and for mathematics courses in numerical methods of analysis. The installation further serves as a workshop for electrical engineering students who perform maintenance on the computer. Research projects range from agriculture to engineering and from home economics to psychology. In addition, some research is done for private industry.¹

Purdue University does not limit its computer installation to educational and research activities. It is currently applying electronic data processing to one of the knottiest problems of any large university, that is, the scheduling of classes for thousands of students. Gone are the "good old days" when thousands of Purdue students and faculty crammed into the armory for three or more days of counseling, scheduling, and standing in line. For the spring semester 1957-58, schedules were prepared electronically for 1,750 engineering and agriculture freshman at Purdue. A total time of 45 seconds was required to complete each student's class schedule. The process will be expanded to embrace a larger group of students for the fall semester, 1958-59. This will be the final phase of ironing out the details before establishing electronic class scheduling as a campus wide procedure at Purdue.²

Iowa State College at Ames used its IBM 650 on a problem involving extensive statistical analysis of rainfall data concerning drought-susceptible states in the Mid-West. Further problems for solution by the computer concerned long-range weather prediction, cloud seeding, economic studies of farm adjustment, and others.

Computer leadership in the Mid-West was not attained without considerable effort. Replies from computer users in this area indicate that numerous problems were encountered in the process of acquiring electronic equipment. Foremost was the problem of programming. The reply from a Wisconsin user of an IBM 650 describes a typical situation:

The biggest problem we encountered was of our own making — failure to allow adequate time for programming, "debugging" and

1. V. L. Anderson and L. D. Pyle, "Organization, Services and Policy, Statistical and Computing Laboratory, Purdue University," March, 1958, p. 7.

2. "Electronic Aspirin for the Scheduling Headache," campus copy, Lafayette, Indiana, February, 1958, 10:5, p. 2.

conversion. . . . In the relatively short period of 14 weeks, prior to the delivery of the computer, the programming, writing, and coding of instructions and the "debugging" was [sic.] accomplished. However, the conversion from manual and punched card systems to the 650 did not progress as smoothly as we had anticipated. It took another eight months to complete the conversion of the applications originally planned in our justification of the machine.

Another programming problem was encountered at the IBM 650 installation at the Wisconsin Highway Commission.

Problems were programmed to produce particular results. As these were processed, it was realized that information was developed that could produce additional desirable results. Thus, early applications were modified and re-modified until all desired results were obtained.

Other problems encountered by Mid-West computer users were:

1. Failure to schedule sufficient time for machine shakedown prior to planning a productive operation, with the result that parallel operations were extended beyond original plans, and
2. Delays in completion of modification of facilities to house the computer.

Mid-Western computer leadership did not result from reckless ventures into this new field. Many firms, such as the Allis-Chalmers Manufacturing Company in its engineering application, cautiously progressed from Card Programmed Calculators to the IBM 650 and recently to the IBM 704. This latest installation at Allis-Chalmers is used to solve a variety of problems in the design of such products as steam turbines, nuclear reactors, transformers, motors, generators, and cement kilns. Specific problems include mechanical vibration analysis, heat flow, magnetic fields, and steam turbine heat balance. In its IBM 650 installation for accounting purposes Allis-Chalmers Comptroller's Division achieved full utilization of available computer time in a matter of weeks as a result of adequate advance planning, programming, testing, and "debugging."

Similar progress from one type of computer to a larger, more advanced model was the experience of General Electric's Flight Propulsion Laboratory at Cincinnati. Their first large scale computer, an IBM 701, was installed in June, 1953. In January, 1956, the company acquired an IBM 704 and in the Spring of 1958, installed its second IBM 704. Applications range from engine performance calculations to stress, vibration, chemical equilibrium, shaft critical speed, heat balance for power plants, component design and performance, test data reduction, heat transfer, statistics, control design, and trajectory analysis. Although most applications are of a scientific nature, business applications have been increasing so that up to four hours per week of IBM 704 time are used for this purpose.

The Army Engineers' Supply Control Office in St. Louis, Missouri,

similarly kept pace with industry in the use of electronic accounting machines and computers. In 1953 the Card Programmed Calculator of IBM was successfully used. In 1956 this equipment was replaced by an IBM 650 Card System. In July of 1957 an IBM 650 with magnetic tapes was installed — the Army's first magnetic tape computer.

Similar progress from a smaller computer to a larger one was the experience of the Monsanto Chemical Company of St. Louis which, in February, 1955, stepped up to an IBM 702 from an IBM Card Programmed Calculator. Cook Research Laboratories of Skokie, Illinois, also moved from a Card Programmed Calculator to an IBM 650.

The solution of these varied problems resulted in very satisfactory and often unique computer installations. An Ohio utility company, in addition to its complex customer accounting application, used its IBM 650 to prepare its operating reports. Some thirty-seven pages of financial statements are prepared by using line cards, punched by the IBM 650, and listed on blank continuous-form stock on accounting machines. These listings are overlaid with form headings on transparencies, photographed by Xerography, and printed with multilith equipment without any manual typing, comptometer operations, or proofreading.

The State Farm Mutual Automobile Insurance Company in its St. Paul regional office has adapted its IBM 650 to selective underwriting and automatic premium rating of its automobile insurance policies. Automatic underwriting tasks are performed on the IBM 650 by running a series of calculations on certain classifications of facts recorded in punched cards. The remaining facts are compared with standardized data previously entered on the computer's magnetic drum. All applications falling within the tolerance of risk acceptable to the company are automatically passed, and those that do not are called to the attention of human underwriters for final decision. In its premium rating operations the IBM 650 automatically selects rates according to vehicle's age, value, and limit of liability for all coverages, territories, and classifications.³

The RCA Bizmac installation in the Detroit headquarters of the United States Army Ordnance Tank-Automotive Command is unique not only because it is the first Bizmac installation, but also because of the voluminous task assigned to it, that is, keeping track of the Army's vast inventory of tank and automotive parts all over the world. In recording this huge inventory Bizmac maintains up-to-the-minute information about the supplies that are on hand at each of the twelve depots, how much is needed, what has been ordered and in what quantity, and how much material is in transit. Bizmac makes spare parts catalogues available to the various depots even before a new vehicle rolls off the assembly line. By keeping track of how fast various items are withdrawn from stock at each depot, Bizmac is able to forecast future requirements.

The first Datatron Computer installed by the Allstate Insurance

3. International Business Machines Corp., new release, December 7, 1956.

Company in its home office was originally used primarily for the preparation of reports to management. The company has since acquired two additional Datatrons plus an IBM 650 in three of its branch offices for the issuance of policies and endorsements, and the maintenance of accounts receivable records.

Chrysler Corporation's Parts Division obtained its IBM 702 primarily as a means of achieving effective control of a nation-wide inventory of over 85,000 different automotive parts and accessories. Other applications were central invoicing, accounts receivable, cost of sales, and sales analysis.

Sears Roebuck and Company's first application for its Datatron Computer was the preparation of semi-annual sales and inventory budgets for its 725 retail stores. The broad purpose of this program was to find the optimum dollar inventory each division should carry to support sales prospects adequately and economically. Other applications were sales analysis, payroll, and analysis of customer responses to Sears catalogues. Sears has since ordered three more Datatrons for further automation of its paperwork ranging from mail order to bi-weekly payrolls for 10,000 employees.

The IBM 650 at the Wisconsin State Highway Commission is used primarily for highway engineering computations which involve center-line-grade, road design, and earthwork estimating programs. In addition, a licensee indexing program is carried out for the Motor Vehicle Department. This program, called "Soundex," converts names of licensees to an alpha-numeric code based on the consonants in names. For the Income Tax Division the IBM 650 checks individual returns for tax computation, distributes tax moneys, and checks installment payments. It is also used to compute the general state payroll.

The Mid-West has three Alwac III-E Computer installations, one for customer billing and engineering applications at an Ohio utility, and two in engineering applications; one is at the Institute of Gas Technology in Chicago, and the second is at Reliance Electric and Engineering Company, Cleveland. The Institute uses its computer for mass spectrometer calculations, gas distribution network analysis, and for the analysis of properties of gases. The Reliance Electric and Engineering Company's Alwac is used primarily in electric machinery design calculations.

This wealth of experience with computers especially qualifies these Mid-Western firms to recommend means of avoiding many of the problems encountered in installation and conversion. On the subject of physical facilities to house the unit an air force controller states: "In planning for computer facility construction or modification, make adequate time allowance for delays occasioned by weather, material and labor shortage, etc." An electric motor manufacturer recommends that the physical size of the computer be carefully checked so that adequate access and floor space is provided, and that consideration be given to the cost of such related items as air conditioning and power facilities.

On the matter of programming and conversion a food producer suggests:

Don't rush your "get ready time" in order to complete all the programming and planning because of an approaching delivery date. You will prevent many headaches and save your company money by postponing delivery and using this time to make sure that everything has been considered for a smooth conversion.

Small details can become important in a conversion to electronic data processing. One computer user recommends:

A review [should be made] of existing systems to assure that significant details of the present system lend themselves to automation. Specifically, I am referring to an item such as part numbering, where it is particularly important that the number is of the type which can be economically processed over electronic equipment.

With reference to "debugging" and testing, one computer user mentioned: "Arrange, to the extent possible, for complete system finalization and computer program 'debugging' for initial applications prior to system installation." Another expressed himself rather strongly on the entire programming and "debugging" problem as follows:

In programming an application, no instruction should be written until the detail logic charts have been thoroughly reviewed and "debugged." Each small segment of a large program should be established as a sub-routine with its own housekeeping, entries, and exits. "Debugging" on the computer should not begin until desk "debugging" has been completed and test cases prepared. A thorough plan should be developed on the approach to the "debugging" operation.

Although an electronic computer is an inanimate piece of machinery, often referred to as a "mechanical brain," a majority of Mid-Western computer users showed great concern for personnel in any way associated in the installation. One controller states:

Place heavy emphasis on thorough advance training for programmers and operators, along with selective orientation of top officials and other employees who will be involved, directly or indirectly, in the applications to be implemented on the computers.

The manager of a data processing center suggests:

Make sure that the people who are going to use the output understand, in advance, how the system processes data, and in detail what results will be generated in the output data. Also make sure that the user has developed his own procedures for dealing with all the conditions and contingencies of output prior to actual production.

On the subject of personnel orientation an electronic data processing analyst in government service states:

If the idea of electronic computing is new to the organization, some time may have to be devoted to educating prospective users that programs can be written to solve many types of equations, to follow accounting procedures, to process payrolls, etc.

Orientation apparently also serves as a means of obtaining the personnel cooperation which assures the success of the computer installation. One controller said:

Bend over backwards, if necessary, to keep the people who will be operating the computer, processing the output, and working with results, informed of the progress being made, and solicit their help during the planning stages so that they will feel an important part of the program. The most detailed studies and preparations alone will not make the project a success; you must have the cooperation and interest of the people who will be performing operations and processing the results to make the venture a successful and profitable one.

THE USE OF PRIVATE RESIDENTIAL HOUSING TO MINIMIZE BUSINESS RECESSIONS

by

Harvey E. Hohl*

As an aftermath of the last great depression the people of the United States have continuously sought to strengthen monetary and fiscal policies to minimize a similar catastrophe in the future. The objective has been to influence indirectly economic activity in order to prevent dangerous cyclical fluctuations and unemployment. The specific plan which has received the most publicity in recent months has been the anti-recession housing program. With many segments of the economy experiencing difficulty, part of the responsibility for halting the business decline was transferred to the housebuilding industry.

The Employment Act of 1946 emphasized the need for greater stability within the framework of private enterprise, which supplies the public with the goods and services that it is free to accept or reject. Although the free enterprise system has been increasingly productive without hampering the actions of individuals, the economic fluctuations have been of great concern to the government. Stabilizing activities to encourage a favorable environment are intended to eliminate some of the individual fears that slow down economic growth.

In past years our economy has been strengthened in many ways, including improvements in the financial system. For example, banks are now able to convert their deposits into a safer and more liquid form of money while debtors, especially businessmen and home owners, can get government assistance to meet the demands of their creditors. More specifically, long-term amortized home mortgages have been substituted for the usual short-term loans to finance home ownership, with the Federal government guaranteeing a large part of the debt. This was done to encourage home ownership and to provide a better supply of adequate housing demanded by the public.

The effect upon business and prices is similar to a Federal deficit expenditure, if the source of the housing loan is identical. The essential difference between the government's borrowing the money either to build a house for rent or to lend the money to a housebuilder and the government's guaranteeing a loan which the builder of the house obtains is that the latter does not appear in the Federal budget. Although housing authorities do not have direct jurisdiction over government guarantee of loans or the insurance of mortgages, they were instrumental in having Congress allocate one billion dollars this

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year to the Federal National Mortgage Association (FNMA). This program has contributed much to economic stabilization, but there is a definite need for better control. (See Appendix I for the mortgage and loan procedure by FHA and VA officials.)

Obviously the government, by guaranteeing loans, can go beyond the indirect influence of the Federal Reserve Board in stimulating the flow of credit. The effect upon private residential construction will depend upon the existing credit structure and the relative changes that are anticipated. The housing market seeks the level of construction investment activity through the balancing of effective demand with the cost of supply. The resultant price not only determines the resources to be utilized in production, but also the customers who will buy the house. This consumption good requires a high relative price in relationship to a man's income and as a consequence, credit is significant in almost all home purchases. Recognizing the need for housing, the government has guaranteed private loans to make the potential borrower more credit-worthy by enabling him to obtain more funds and/or better financial terms. The outcome has been a de-emphasis of the house price and a significant interest in the required initial outlay and the periodic costs contracted for the life of the home mortgage. The down payment and closing costs will determine the initial outlay of cash, while the periodic costs are the mortgage payments on principal and interest. Other costs which will not be considered, but that enter into the buyer's decision to buy a particular house, are taxes, operation maintenance, insurance, etc.

Based on present day experiences, it may be concluded that home purchases today require large capital expenditures obtained from both liquid assets and mortgage credit. The down payment demands cash and its size is determined by the sales price and the extent to which mortgage credit is available. The changes in the size of the down payment have been affecting purchases more than changes in the purchase price. This gives an inverse correlation between the amount of down payment and the monthly mortgage payments which puts a limit on buyers in proportion to what they earn.

The period of amortization is usually about two-thirds of the expected life of a house. In recent years there has been an extension in the length of the mortgage, thereby reducing the monthly payments and significantly increasing the total amount of interest paid. The fluctuation in the mortgage interest rate affects cost considerably as it directly influences periodic payments and the total cost. In many contracts involving 25 and 30 years, the total interest charges now surpass the principal.

In the past year there has been a significant change in interest rates as the result of Federal Reserve Board activities. Investment in private residential construction has been affected by these actions but not to the desired degree because of their indirect influence. This could be improved if all financial institutions appealing for primary deposits were regulated by a centralized council not unlike the Federal Reserve System. It would then be possible to promote flexible

and consistent policies for economic stabilization as part of the over-all activity. For example, the attitudes of all the executives of commercial banks, savings and loans associations, and insurance companies could be similarly conditioned by what the nation needs and to stabilize the business cycle. Factors of quality, price, style, and materials, as dictated by local building inspectors, would then be minimized so that the ultimate consumer would be motivated according to the availability of credit. The need to eliminate the variances between financial institutions, especially those operating on state charters, is evident from this quotation:

The lender's influence may determine whether or not a specific structure will be built or, indeed, whether any structure of a given type is erected in a community. His judgment may apply not only to the amount of building, but also to the characteristics of the structure involved. The design, layout, materials used, and contractor selected may be subject to the lender's scrutiny and approval. The situation is much as if an automobile assembly line could not get under way until a known purchaser existed for each car and specific financing for that car was in hand.¹

Research has proved that the lender's attitude is responsible for a large percentage of the manufacturer's advertising dollar's being spent to create favorable impressions on financing institutions concerning the advantages and benefits of prefabrication. It is also partly because of the attitude of the financial institutions that prefabricators have returned to building the so-called conventional designs today.

Because the builder in recent years has been arranging more of the permanent mortgage financing, it is possible for him to search effectively for the best money terms and appraised values. Not only has the builder improved his bargaining power in the primary loan market but volume transactions have encouraged insurance companies, with their increased funds, to invest profitably in home mortgages. As a source of reserve credit the builders may turn to the secondary market, which influences the liquidity of the real estate loans held by the primary lenders and, equally important, permits them to channel mortgages to long-term investors. Besides the secondary market, the FNMA, which purchases existing mortgages, and the Home Loan Banks, which loan on collateral of mortgages or bonds, should be regulated by the proposed centralized council in order to provide mortgage lending institutions with accessible credit. The ease with which lenders could divert credit in response to premium rates would permit maximum freedom while minimizing the fluctuations in our national interest rate structure.

The following statistics illustrate the most recent changes in the residential mortgage portfolios of our major lenders.

1. Miles L. Colean and Newcomb Robinson, *Stabilizing Constructions: The Record and Potential* (New York: McGraw-Hill Book Company, 1952), p. 86.

TABLE I
Increase in Residential Mortgage
Portfolios of Major Lenders²
(In millions of dollars)

Year	Savings & Loan Assns.	Life Insurance Cos.	Mutual Savings Banks	Commercial Banks
Total Residential				
1956.....	4,162	2,665	2,148	1,137
1955.....	4,997	2,656	2,357	1,736
1954.....	4,005	1,999	1,877	1,227
1953.....	3,354	1,513	1,451	737
FHA Insured				
1956.....	87	259	226	255
1955.....	233	279	350	454
1954.....	124	104	311	194
1953.....	144	331	321	237
VA Guaranteed				
1956.....	773	1,244	1,455	209
1955.....	1,170	1,431	1,511	361
1954.....	742	1,083	1,209	289
1953.....	585	213	816	49
Conventional				
1956.....	3,302	1,162	467	673
1955.....	3,594	946	496	922
1954.....	3,139	812	357	744
1953.....	2,625	969	315	450

We may surmise that the fluctuations in holdings were caused by the interest rates, both charged and paid, together with the varied investment policies of the financial institutions. As only the commercial banks, with approximately one-eighth of the mortgages, are directly subjected to the Federal Reserve System's dictates, there is very little control over residential mortgages at this time. Future monetary controls will become still less useful if the banks' share continues to decrease and people shift their savings to loan associations and insurance companies.

In addition, the spread between the price paid for funds and the interest rate charged for their use has fluctuated to the extent of working hardships on certain institutions. This explains why the holdings of VA and FHA mortgages are influenced by the government's pegged rate with flexible discount points and the market rate of interest. Today the ability to find housing credit not only depends upon adequate savings but how well housebuilders can compete with alternative investment opportunities.

2. "Residential Real Estate Markets," *Federal Reserve Bulletin*, April, 1956, p. 370.

Since World War II the possibility for investment in residential mortgages has grown by leaps and bounds. Table II indicates the volume of housing by ownership, location, and type of structure.

TABLE II
New Non-Farm Dwelling Units Started, by Ownership, Location,
and Type of Structure³
(In thousands)

Period	Total	Ownership		Location		One Family Houses
		Private	Public	Metro-politan	Non-Metro-politan	Number
1946	670.5	662.5	8.0	No	No	590.0
1947	849.0	845.6	3.4	No	No	740.2
1948	931.6	913.5	18.1	No	No	766.6
1949	1,025.1	988.8	36.3	No	No	794.3
1950	1,396.0	1,352.2	43.8	1,021.6	374.4	1,154.1
1951	1,091.3	1,021.1	71.2	776.8	314.5	900.1
1952	1,127.0	1,068.5	58.5	794.9	332.1	942.5
1953	1,103.8	1,068.3	35.5	803.5	300.3	937.8
1954	1,220.4	1,201.7	18.7	896.9	323.5	1,077.9
1955	1,328.9	1,309.5	19.4	975.8	353.1	1,194.4
1956	1,118.1	1,093.9	24.2	779.8	338.3	989.7
1957	1,041.9	992.8	49.1	699.7	342.2	872.7

This terrific building pace has taken care of the nation's pent-up demand by piling up a mortgage debt now in excess of one hundred billion dollars. In contrast, immediately after World War I and until 1935, there was less than an average of three billion dollars per year in annual residential construction and very little debt accumulated, since credit available was usually short-term. It is interesting to note that the decline in the last two years as shown in Table II centered in homes financed with government-backed mortgages. Authorizations to expand secondary market operations and FNMA were increased in an attempt to stimulate homebuilding. Interest rates increased to 4¾ per cent for VA and 5¼ per cent for FHA loans while down payments were reduced to a new low and maturities lengthened to 30 years.

Seldom is the ability of the government to influence residential construction by restrictive legislation or monetary and fiscal policies questioned. Although the indirect approach is preferred, a recent statement by Chairman Martin of the Federal Reserve Bank illustrates their ineptness to control housing activity.

Congress has placed on the Federal Reserve System responsibility for formulating and carrying out national credit and monetary policies. The System's objective is to contribute to sustainable economic growth and to maintenance of a stable value for the dollar. This responsibility for credit and monetary conditions relates to the over-all credit situation, not to markets for

3. "New Housing Statistics," *Construction Review*, January, 1956, p. 20; May, 1958, p. 27.

particular goods and services or to the activities of particular producer or consumer groups. The System's actions influence most directly the lending and investing activities of commercial banks, which supply the credit used by individuals or businesses. These operations of the commercial banks, in turn, influence other financial institutions and markets.

The general economic developments with which the System is primarily concerned are the result of combined activities of the many markets that make up the economy. The System must keep itself informed constantly about these particular markets in order to make judgments and to determine appropriate credits and monetary policies.

Response to the Subcommittee's inquiry about the influence of credit and monetary policy on mortgage and housing markets must be considered against this background. As these are specific markets, the influence of credit and monetary policies upon them is indirect.

The effects of changes in credit and monetary policy normally take some time to permeate a market as complex and variable as the mortgage market. They may be particularly slow to influence construction, for instance, if the amount of financing commitments by lending institutions is large. The precise timing of events cannot be foreseen in view of the many variables involved and the changing circumstances of each period.

The influence of credit conditions on home building and purchase is even more difficult to trace than that on mortgage markets, particularly as far as the timing of changes is concerned.⁴

With this in mind, it is recommended that a council be established, whose primary concern will be the residential housing activity. Its responsibility would be to coordinate all actions with monetary and fiscal authorities. The government guarantee of loan-terms would be flexible to influence prices. The price of houses could be reduced or increased depending upon what the economy required. Initial outlays would be influenced by changes in appraisal practices and discretionary use of closing fees. Amortization periods could easily be changed to affect recurring costs. However, the mortgage rate of interest which affects periodic costs would be the most instrumental method of controlling costs. In addition this proposed council would manipulate housing credit in both the primary and secondary markets. With this control, the savings earmarked for homes in various financial institutions would be allocated, according to the needs of the economy as well as the needs of the consumer.

During boom times savings would go into non-housing investments and then, when the opportunity to invest was curtailed, the savings would be channeled into profitable housing investment. Private enterprise and not the government would still be responsible for

4. "Monetary Policy and the Real Estate Markets," *Federal Reserve Bulletin*, 1955, 41:1317-1319.

building the houses according to the effective local demand. The council's activities supplemented by monetary and fiscal policy would directly activate the consumers to build new houses during recessions and utilize the existing supply in boom periods.

As a result, the housing industry would not attract long-term investment funds and, therefore, would not be able to substitute equipment for labor to any degree. Innovations, such as the prefabrication of houses in a factory would be discouraged and some of the present day archaic methods championed by local customs and unions retained. However, the sacrifice of our housing dollar value would be worthwhile if it minimized our general economic fluctuations. This action could help to forestall the unpleasant experience of the typical building cycle by adjusting its timing and amplitude. Research indicates this use of private residential housing will minimize future business recessions.

APPENDIX I

Mortgages Insured and Loans Guaranteed⁵

After a new unit has passed its final compliance inspection, it is ready for permanent financing. At this stage, many units drop out of the processing channels of both FHA and VA or shift between the two. A house processed for an FHA-insured mortgage, for example, may be sold with a conventional mortgage or for cash, or, if it is also eligible for a VA-loan guarantee, to a veteran with VA financing. Similarly, houses approved for VA-guaranteed loans may be conventionally financed, sold for cash, or sold with FHA financing, if eligible. Hence, there is normally a considerable drop from the number of units started under FHA and VA inspection to the number ultimately financed under the two programs.

After the final compliance inspection, the steps necessary in order to obtain FHA mortgage insurance depend on whether the FHA has issued a firm or conditional commitment for the mortgage. When a firm commitment has been issued, the mortgage insurance follows immediately after completion and final inspection of the house, since a credit investigation had already been made before the commitment was issued. For units built with conditional FHA commitments, the builder finds a prospective buyer, a credit investigation is made, and if this is satisfactory and other requirements have been met, primarily those governing minimum down payment and the like, the FHA approves the loan and insures the subsequent mortgage. FHA mortgages on existing housing are handled in much the same way as those for new construction, except that the inspection stage is omitted.

The normal sequence of actions leading to a VA-guaranteed mortgage, after a qualified veteran purchaser is found, includes the following steps: first, the lending institution submits the veteran's application for a home loan accompanied by his certificate of eligibility and the Certificate of Reasonable Value. Next, the VA examines the application, checks the veteran's credit and compliance with other requirements, and if the loan is approved, issues a "certificate of commitment to guarantee" to the lending institution. Finally, the latter makes the loan and submits a notice of full disbursement to the VA which then issues an "evidence of guarantee" to the lender.

This procedure can be telescoped. Any "supervised lender" (subject to State or Federal examination and supervision) is legally empowered to make home loans to qualified veterans without prior approval by the VA. These institutions can subsequently (within 30 days) submit loan reports and supporting documents, and the loan closing and guarantee are automatic if all laws and regulations have been complied with. Not all institutions use this privilege, however. In recent years, about nine-tenths of the mortgages on new houses for which VA-guaranteed loans were being sought, and about three-fourths of all the mortgages (on new and existing construction combined) have gone through the full cycle of obtaining prior VA approval of loans.

5. Marvin Wilkerson and Dorothy K. Newman, "FHA and VA Housing Statistics and the Housing Market," *Construction Review*, June, 1957, p. 13.

WATCH WISCONSIN

A Comparative Analysis of Retail Sales Trends

by

Parker M. Holmes*

Total retail sales in August were estimated at \$17.0 billion, which is 3 per cent below the year-ago level. However, there was one less selling day in August of this year. It now appears that sales in the fourth quarter of 1958 will equal, if not exceed, the fourth quarter of 1957. This was anticipated earlier in the year and, as was pointed out in the April issue of the *Marquette Business Review*, under these conditions total sales for the year 1958 will approximate the 1957 all-time high.

In view of the sharp decline in sales and earnings of industrial goods manufacturers and with unemployment at a relatively high level, it is somewhat surprising that retail sales have remained approximately steady. This reflects a complexity of factors at work in the economy. In the first place, the unemployment figure is based upon the number of persons seeking jobs, which has increased. Second, unemployment compensation has partially offset decreased total earnings for individual families. Third, consumers have stored up a substantial "back-log" in savings, and the psychological factor of uncertainty as to the future appears to have become a secondary factor in motivating consumers to spend or to save.

Among other significant factors, decreased spending on the part of consumers has been largely confined to the hard-goods lines — particularly for autos and major appliances, which have been offset by increased expenditures for food, drugs, gasoline, and apparel. Also, as was pointed out in the June issue of the *Business Review*, "markets are local" and so has been the recession. Increased government defense spending, construction, good farm and cattle prices, more favorable than usual weather conditions, and increased tourist traffic have maintained earnings and expenditures at high levels in many local markets and areas.

As to the general economy, the consensus is that the recession is over and that an upturn is already under way. Among the important indicators that turned up during May and June are industrial stock prices, new orders for durable goods, commercial and industrial building contracts, average hours worked per week in manufacturing, new incorporations, the wholesale price index, and residential building contracts.

On the other hand, basic capital investment is still declining and machine tool orders, which turned up in February and March, declined again in April and May. Other unfavorable factors are reduced

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auto production, power earnings and reduced corporate dividends by some companies, and the current threatening of strikes on the part of some labor unions. Therefore, no general upswing in business can be expected until some time in 1959.

Retail sales by major categories for the first six months of 1958 compared with the corresponding period of 1957 were as follows:

	Per Cent Changes
Total Retail Sales	— 0.5
Food	7.2
Drugs and Proprietary	6.0
Gasoline Service Stations	3.5
Apparel	2.8
General Merchandise	0.5
Eating and Drinking Places	— 0.3
Lumber, Building, and Hardware	— 1.8
Furniture and Appliances	— 4.0
Automotive	—13.8

Cities currently reporting August sales 12 per cent to 22 per cent above the national average are: Sioux City, Iowa; Sioux Falls, South Dakota; Trenton, New Jersey; Albuquerque, New Mexico; Salem, Oregon; Rapid City, South Dakota; New York, New York; Greensboro, North Carolina; and Boise, Idaho.

Among the larger cities, Milwaukee continues with a relatively good showing, ranking third with current sales 5.2 per cent above the national average. Other Wisconsin cities showing better-than-average performance are Madison, La Crosse, Appleton, Green Bay, and Oshkosh.

**Monthly Index of Retail Sales vs. Year-Ago

	1958 vs. 1957		
	Aug.	July	June
National Average	97.0	100.0	97.0

MAJOR CITIES

New York City	*109.3	*111.7	*107.9
St. Paul	*103.9	*105.4	*100.9
MILWAUKEE	*102.0	*104.5	*101.9
San Diego	*101.9	*103.5	*101.0
Kansas City	*100.5	*102.8	* 98.6
Dallas	* 99.4	*101.6	* 97.3

Atlanta	* 99.3	*103.2	*100.1
Los Angeles	* 98.8	*103.1	*101.8
Minneapolis	* 98.8	*101.5	* 97.1
Chicago	96.7	*100.5	* 97.8
Philadelphia	96.6	99.3	96.7
Cincinnati	96.4	98.4	95.6
Boston	96.1	98.3	95.1
San Francisco	95.9	99.1	95.8
New Orleans	94.9	98.3	95.7
Houston	94.8	98.0	95.0
St. Louis	94.1	96.7	94.1
Baltimore	92.4	96.2	95.2
Buffalo	91.9	94.6	91.0
Washington, D. C.	91.1	94.7	93.3
Pittsburgh	89.7	92.6	90.7
Cleveland	89.6	93.1	91.5
Detroit	88.4	91.4	89.0

Other Wisconsin and Illinois Cities

Madison	*104.5	*106.1	*102.0
La Crosse	*103.2	*106.3	*101.1
Appleton-Neenah	* 99.9	*104.9	* 98.4
Green Bay	* 98.6	*101.3	* 98.4
Oshkosh	* 97.2	99.4	95.7
Racine	96.4	99.6	96.0
Superior	95.0	*100.9	96.6
Kenosha	95.0	97.6	95.7
Sheboygan	94.2	98.8	95.8
Beloit-Janesville	90.0	93.4	90.9
Champaign-Urbana	*103.1	*105.1	*100.4
Moline-Rock Island	* 99.0	*103.7	*100.2
Springfield	* 98.8	*100.9	* 97.4
Bloomington	* 98.6	*101.5	* 99.5
Decatur	94.3	96.6	94.3
Peoria	91.5	94.4	91.7
Rockford	91.2	94.6	92.5

*Above National Average.

**Source of Data: Sales Management.

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